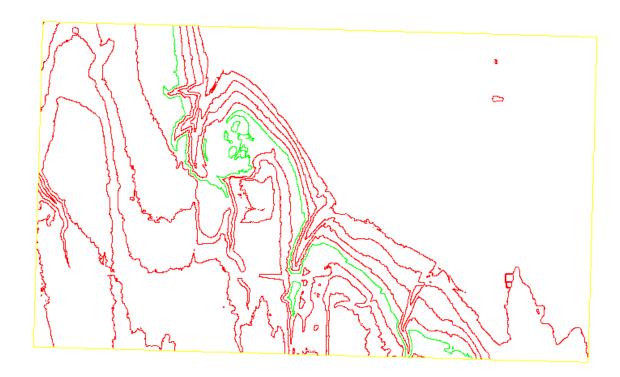
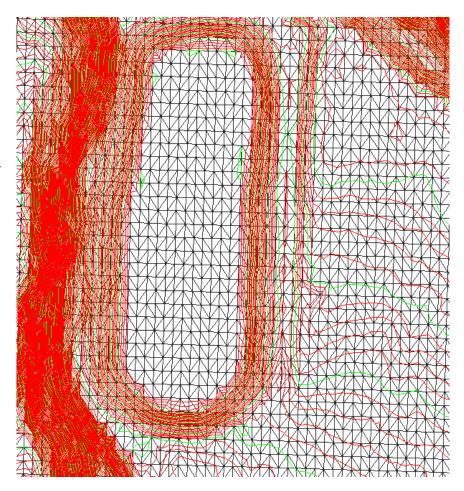


These are the settings to use for the incoming NED data. The coordinate system will always be LL83.

Civil 3d has imported the DEM data into the surface. We have so much data in this file, Civil 3d has entered into Level of Detail display mode. The closer in we zoom, the more detail we see. At the zoom level that we see the whole file, we see the below image.



Zoomed in much closer, notice how the data from the NED file is organized into a bunch of rows and columns. This is what they mean by raster data.



## **One Little Problem**

The USGS and the National map deliver data in meters. When we set the coordinate zone of this drawing, the DEM import converted the data from meters to feet, but only the northings and eastings. The Z coordinate is still in meters. If you need the data in feet, export the surface to a Land XML file, create a new drawing, set the coordinate zone appropriately, and import the land XML file. You can confirm that the elevations you are using are correct by comparing them to the elevation returned from the spot elevation tool in the National Map Viewer.

## **Comparison USGS NED vs Google Earth Surface**

This process takes longer then importing from Google Earth. It all comes down to "you get what you pay for." Using the National Map and getting the data yourself takes longer but you get much better results

After importing the same area in both methods, we can compare the two.

USGS NED	Google Earth Surface
2,099,520 Triangles	1,819 Triangles
Smallest Triangle Area = 43.2 SF (all	Smallest Triangle Area = 217.3 SF
triangles are that size)	

It's not even close USGS National Elevation Data outperforms Google Earth Surface by a mile!

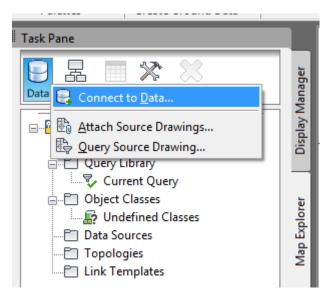
## **Other USGS Elevation Products**

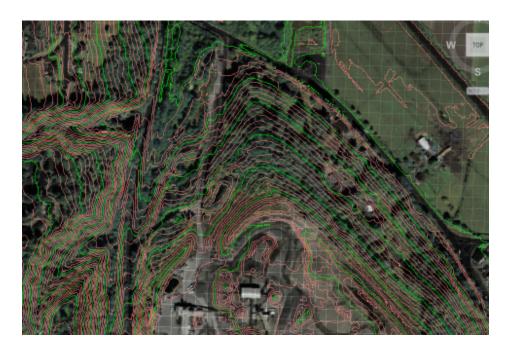
From other USGS websites you can download other elevation data sets, including Shuttle Radar Topography (SRTM), Digital Elevation Models (DEM), LiDAR, and many more. Go to <a href="http://eros.usgs.gov/#/Find\_Data/Products\_and\_Data\_Available/Elevation\_Products\_formore information">http://eros.usgs.gov/#/Find\_Data/Products\_and\_Data\_Available/Elevation\_Products\_formore information.</a>

## **Importing Image**

To import the image, use the Data connect in the map task pane. Activate it with the MAPWSPACE command. Click on the data button and select Connect to Data.

On the following screen, select Add Raster Image or surface connection. Select the GeoTIFF File and press connect. On the next dialog box, select





Credits: Some information and images from Being Civil Blog <a href="http://beingcivil.typepad.com/my\_weblog/2010/03/civil-3d-and-google-earth-image-placement.html">http://beingcivil.typepad.com/my\_weblog/2010/03/civil-3d-and-google-earth-image-placement.html</a>;

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